

1       Claims 1 and 16 are amended.

2       Claims 45-52 are canceled without prejudice.

3       Claims 1, 3-11, 13-19, 21-26, 28-34 and 36-44 are pending and are listed as  
4 follows:

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6       **1. (Previously Presented)** One or more computer storage media  
7 comprising a flash memory driver that is executable by a computer to interface  
8 between a file system and one or more flash memory media, the flash memory  
9 driver comprising:

10       flash abstraction logic that is invokable by the file system to manage flash  
11 memory operations without regard to the type of the one or more flash memory  
12 media; and

13       flash media logic configured to interact with different types of the flash  
14 memory media, wherein the flash media logic is programmable to permit users to  
15 match particular medium requirements of a specific manufacturer;

16       wherein the flash abstraction logic invokes the flash media logic to perform  
17 memory operations that are potentially performed in different ways depending on  
18 the type of the flash memory media, and further wherein the flash memory driver  
19 is flash memory medium agnostic, and wherein one of the flash memory  
20 operations includes performing wear-leveling operations associated with the flash  
21 memory medium by way of circular and continuous advancement of a write  
22 pointer, and wherein the flash memory driver resides as a component within an  
23 operating system of the computer.

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25       **2. (Cancelled).**

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2       **3. (Original)** The flash memory driver as recited in Claim 1,  
3 wherein one of the flash memory operations includes maintaining data integrity of  
4 the flash memory medium.

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6       **4. (Original)** The flash memory driver as recited in Claim 1,  
7 wherein one of the flash memory operations includes handling recovery of data  
8 associated with the flash memory medium after a power-failure.

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10      **5. (Original)** The flash memory driver as recited in Claim 1,  
11 wherein one of the flash memory operations includes mapping status information  
12 associated with physical sectors of the flash memory medium for use by the file  
13 system.

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15      **6. (Previously Presented)** The flash memory driver as recited in  
16 Claim 1, wherein the flash medium logic is further configured to translate  
17 commands received from the file system to physical sector commands for issuance  
18 to the flash memory media.

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20      **7. (Previously Presented)** The flash memory driver as recited in  
21 Claim 1, wherein the flash medium logic is user programmable to read, write and  
22 erase data to and from the flash memory media.

1           **8. (Previously Presented)** The flash memory driver as recited in  
2 Claim 1, wherein the flash media logic is configured to perform error code  
3 correction associated with the flash memory media.

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1           **9. (Currently Amended)** A flash driver embodied on a computer-  
2 readable storage medium, comprising:

3           flash abstraction logic, interposed between a file system and a flash  
4 memory medium, configured to:

5           (a) map a logical sector status from the file system to a physical sector  
6 status of the flash memory medium; and

7           (b) maintain memory requirements associated with operating the flash  
8 memory medium;

9           wherein the flash driver is located remote from the flash memory medium,  
10 and wherein the memory requirements include managing wear-leveling operations  
11 associated with the flash memory medium by way of circular and continuous  
12 advancement of a write pointer, and wherein the flash driver resides as a  
13 component within an operating system of a computer;

14           flash medium logic that is programmable to permit users to match  
15 particular medium requirements of a specific manufacturer.

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17           **10. (Previously Presented)** The flash driver as recited in Claim 9,  
18 wherein the programmable flash medium logic is configured to read, write and  
19 erase data to and from the flash memory medium.

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21           **11. (Previously Presented)** The flash driver as recited in Claim 9,  
22 wherein the programmable flash medium logic is configured to receive and  
23 translate specific operational commands from the file system associated with  
24 reading and writing data to the flash memory medium.

1           **12. (Cancelled).**

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3           **13. (Original)** The flash driver as recited in Claim 9, wherein the  
4 memory requirements include maintaining data integrity of the flash memory  
5 medium.

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7           **14. (Original)** The flash driver as recited in Claim 9, wherein the  
8 memory requirements include handling recovery of data associated with flash  
9 memory medium after a power-failure.

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11           **15. (Previously Presented)** The flash driver as recited in Claim 9,  
12 wherein the flash medium logic is programmably configurable by a user to  
13 perform error code correction associated with the flash memory medium.

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15           **16. (Currently Amended)** A flash driver embodied on a computer-  
16 readable storage medium, comprising:

17           user programmable flash medium logic, configured to read, write and erase  
18 data to and from a flash memory medium, wherein the flash medium logic is  
19 programmable to permit users to match particular flash medium requirements of a  
20 specific manufacturer; and

21           flash abstraction logic, interposed between a file system and flash memory  
22 medium to maintain universal requirements for the operation of the flash memory  
23 medium;

24           wherein the flash memory driver is flash memory medium agnostic, and  
25 wherein the universal requirements include managing wear-leveling operations

1       associated with the flash memory medium by way of circular and continuous  
2       advancement of a write pointer, and wherein the flash driver is defined as a  
3       component within an application.

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5       **17. (Original)** The flash driver as recited in Claim 16, wherein the  
6       flash abstraction logic passes specific commands associated with certain types of  
7       flash memory media directly to the flash medium logic for translation and  
8       execution.

9

10       **18. (Original)** The flash driver as recited in Claim 16, wherein the  
11       flash abstraction logic is an interface between the flash medium logic and the file  
12       system.

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14       **19. (Original)** The flash driver as recited in Claim 16, wherein the  
15       universal requirements include maintaining data integrity of the flash memory  
16       medium.

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18       **20. (Cancelled).**

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20       **21. (Original)** The flash driver as recited in Claim 16, wherein the  
21       universal requirements include handling recovery after a power-failure.

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23       **22. (Original)** The flash driver as recited in Claim 16, wherein the  
24       flash medium logic comprises a set of programmable entry points that can be

1 implemented by a user to interface with the type of flash memory medium  
2 selected.

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1           **23. (Previously Presented)** A processing device that uses a flash  
2 memory medium for storage of data, comprising:

3           a file system, configured to control data storage for the processing device;  
4           flash media logic, configured to perform physical sector operations to a  
5 flash memory medium based on physical sector commands, wherein the flash  
6 medium logic comprises a set of programmable entry points that can be  
7 implemented by a user to interface with any type of flash memory medium  
8 selected, wherein the flash media logic is programmable to permit users to match  
9 particular flash medium requirements of a specific manufacturer; and

10           flash abstraction logic, configured to maintain flash memory requirements  
11 that are necessary to operate the flash memory medium, wherein the flash memory  
12 requirements include managing wear-leveling operations associated with the flash  
13 memory medium by way of circular and continuous advancement of a write  
14 pointer, wherein the flash media logic and the flash abstraction logic reside within  
15 an operating system of the processing device.

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17           **24. (Original)** The processing device as recited in Claim 23, wherein  
18 the flash abstraction logic passes physical logic commands associated with certain  
19 types of flash memory medium directly to the flash memory medium logic for  
20 translation and execution.

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22           **25. (Original)** The processing device as recited in Claim 23, wherein  
23 the flash abstraction logic is an interface between the flash medium logic and the  
24 file system.

1           **26. (Original)** The processing device as recited in Claim 23, wherein  
2 the flash memory requirements include maintaining data integrity of the flash  
3 memory medium.

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5           **27. (Cancelled).**

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7           **28. (Original)** The processing device as recited in Claim 23, wherein  
8 the flash memory requirements include handling recovery after a power-failure.

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10          **29. (Original)** The processing device as recited in Claim 23, wherein  
11 the requirements are common to a plurality of different flash memory media.

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13          **30. (Original)** The processing device as recited in Claim 23, wherein  
14 the flash medium logic comprises a set of programmable entry points that can be  
15 implemented by a user to perform error code correction with the type of flash  
16 memory medium used in the processing device.

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18          **31. (Original)** The processing device as recited in Claim 23, whereby  
19 the flash medium logic relieves the flash abstraction logic from performing  
20 translation of the physical sector commands received from the file system.

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22          **32. (Original)** The processing device as recited in Claim 23, wherein  
23 the physical sector operations include read, write and error code correction  
24 commands associated with the flash memory medium.

1           **33. (Previously Presented)** In a processing device that uses a flash  
2 memory medium for storage of data, a method for driving the flash memory  
3 medium, comprising:

4           managing rules associated with operating the flash memory medium in a  
5 flash abstraction logic; and

6           issuing physical sector commands directly to the flash memory medium  
7 from a flash medium logic, wherein the flash medium logic is programmable to  
8 permit users to match particular flash medium requirements of a specific  
9 manufacturer;

10           wherein the method is flash memory medium agnostic, and wherein one of  
11 the rules includes managing wear-leveling operations associated with the flash  
12 memory medium by way of circular and continuous advancement of a write  
13 pointer, and wherein the method is performed by way of a component residing  
14 within an operating system of the processing device.

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16           **34. (Original)** The method as recited in Claim 33, wherein one of the  
17 rules includes maintaining data integrity of the flash memory medium.

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19           **35. (Cancelled).**

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21           **36. (Original)** The method as recited in Claim 33, wherein one of the  
22 rules includes handling recovery of the media after a power-failure.

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24           **37. (Original)** The method as recited in Claim 33, wherein issuing  
25 physical sector commands directly to the flash memory medium comprises

1 receiving read and write commands from a file system and translating them into  
2 the physical sector commands.

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4       **38. (Original)** The method as recited in Claim 33, further comprising  
5 issuing a set of programmable entry points that can be implemented by a user to  
6 perform error code correction with the type of flash memory medium used in the  
7 processing device.

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9       **39. (Original)** The method as recited in Claim 33, further comprising  
10 issuing a set of programmable entry points that can be optionally selected by a  
11 user to interface with the type of flash memory medium used in the processing  
12 device.

13

14       **40. (Original)** The method as recited in Claim 33, further comprising  
15 receiving read and write commands from a file system.

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17       **41. (Previously Presented)** One or more computer-readable storage  
18 media comprising computer-executable instructions that, when executed, perform  
19 the method as recited in claim 33.

1                   **42. (Previously Presented)** A computer storage media for a flash  
2 driver, comprising computer-executable instructions that, when executed, direct  
3 the flash driver to provide an interface between a file system, selected from one of  
4 a plurality of different file systems, and a flash memory medium, selected from  
5 one of a plurality of different flash memory media, wherein the flash driver is  
6 located as a component within an operating system and is remote from the flash  
7 memory medium, and wherein wear-leveling of the flash memory medium is  
8 performed by way of circular and continuous advancement of a write pointer, and  
9 wherein the flash driver comprises programmable flash medium logic that is  
10 programmable to permit users to match particular flash medium requirements of a  
11 specific manufacturer.

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13                   **43. (Previously Presented)** A computer storage media for a flash  
14 driver, comprising computer-executable instructions that, when executed, direct  
15 the flash driver to:

16                   provide an interface between a file system, selected from one of a plurality  
17 of different files systems, and a flash memory medium, selected from one of a  
18 plurality of different flash memory media; and

19                   manage a set of characteristics that are common to the plurality of different  
20 flash memory media at a flash abstraction logic;

21                   wherein the flash driver is flash memory medium agnostic, and wherein  
22 wear-leveling of the flash memory medium is performed by way of circular and  
23 continuous advancement of a write pointer, and wherein the flash driver resides as  
24 a component within an operating system, wherein the instructions provide

1 programmable flash medium logic that is programmable to permit users to match  
2 particular flash medium requirements of a specific manufacturer.

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4 **44. (Previously Presented)** A computer storage media for a flash  
5 driver, comprising computer-executable instructions that, when executed, direct  
6 the flash driver to:

7 provide an interface between a file system, selected from one of a plurality  
8 of different file systems, and a flash memory medium, selected from one of a  
9 plurality of different flash memory media;

10 manage a set of characteristics that are common to the plurality of different  
11 flash memory media at a flash abstraction logic; and

12 provide programmable entry points that can be optionally selected by a user  
13 to interface with the type of flash memory medium selected;

14 wherein the flash driver is located as a component within an operating  
15 system and is remote from the flash memory medium and the flash driver is flash  
16 memory medium agnostic, and wherein wear-leveling of a flash memory medium  
17 is performed by way of circular and continuous advancement of a write pointer,  
18 wherein the instructions provide flash medium logic that is programmable to  
19 permit users to match particular flash medium requirements of a specific  
20 manufacturer.

1           **45.-52. (Canceled)**  
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